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ABSTRACT

This document presents a portrait of multiple risk-taking among teens. Using recent data from the National Longitudinal Study of Adolescent Health (Add Health) and the 1995 National Survey of Adolescent Males, the report describes the extent to which teens engage in multiple health risk behaviors and contrast it with the extent to which teens participate in positive behaviors such as spending time with parents and being involved in extra-curricular activities. The 10 health risk behaviors examined in this study are: (1) regular tobacco use; (2) regular alcohol use; (3) regular binge drinking; (4) recent marijuana use; (5) recent use of illicit drugs other than marijuana; (6) physical fighting; (7) carrying a weapon at school; (8) suicidal thoughts; (9) nonfatal suicide attempt; and (10) unprotected sexual intercourse. The survey results show that engaging in multiple risk behaviors is the exception rather than the rule, and that the share of students engaging in multiple risk behaviors is similar by race and ethnicity. Boys are more likely to engage in multiple risk behaviors as are students in higher grade levels. The majority of students do engage in positive behaviors, and participation in multiple risk behaviors does not preclude participation in positive behaviors. Out of school males are a particularly vulnerable group. (Contains 3 figures, 7 tables, and 20 endnotes.) (SLD)

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Multiple Threats: The Co-Occurrence of Teen Health Risk Behaviors

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Multiple Threats: The Co-Occurrence of Teen Health Risk Behaviors

Many teenagers participate in risk behaviors that threaten their current and future health. Substance use, violence, and unprotected sexual intercourse are responsible for much of the mortality and morbidity experienced in adolescence and early adulthood.[1] While older adults are vulnerable to illnesses such as heart disease, cancer, and diabetes, adolescents are threatened by homicide, suicide, car accidents, and AIDS — ailments that are behavioral and, therefore, preventable.[2]

There is growing recognition that teens who engage in risk behaviors often participate in multiple types of behaviors, referred to as clustering or co-occurrence.[3] Evidence suggests that adolescent risk behaviors share common underlying causes as well as having unique influences; individual, biological, family, school, and neighborhood factors all influence the types of risks teens take.[4] In addition to monitoring adolescent participation in specific behaviors, it is important to focus on the co-occurrence of risk-taking among teens.

In this chapter, we present a portrait of multiple risk-taking among teens. Using recent data from the National Longitudinal Study of Adolescent Health (Add Health) and the 1995 National Survey of Adolescent Males (NSAM) [see box 1], we describe the degree to which teens engage in multiple health risk behaviors and contrast it with the extent to which teens participate in positive behaviors such as spending time with parents and being involved in extra-curricular activities. Describing participation in these behaviors is an important part of understanding teens' exposure to health risks and monitoring efforts to reduce those risks.

How Are Health Risk Behaviors Measured?

Health risk behaviors may threaten the well-being of teens and may prevent them from

becoming fully functioning members of society.

Using recent data from students in grades 7 through 12 from the Add Health survey, we explore the extent to which middle and high school students engage regularly in multiple health risk behaviors. Drawing from common approaches used in prior research, we define health risk behaviors as volitional involvement in established patterns of behavior that threaten the well-being of teens and limit their potential for achieving responsible adulthood.[5] (These are also commonly referred to as problem behaviors.[6]) We distinguish risk-taking behaviors from risk outcomes—the consequences of the behavior. For example, unprotected sexual intercourse is a risk behavior and is included in this analysis, while teenage pregnancy is a risk outcome and is not examined here.

Table 1 identifies the 10 health risk behaviors examined in this study: regular tobacco use, regular alcohol use, regular binge drinking, recent marijuana use, recent use of illicit drugs other than marijuana, physical fighting, carrying a weapon at school, suicidal thoughts, non-fatal suicide attempt,[7] and unprotected sexual intercourse. Although these 10 behaviors are not an exhaustive list of adolescent health risk, they reflect key areas of risk-taking. Conclusions from this study do not necessarily extend to other types of health risk behaviors. Other studies have explored additional types of risk taking such as dangerous driving, eating disorders, and criminal activity.[8]

The definitions employed here are designed to be comparable to measures of similar behaviors in other surveys and to reflect a wide range of behaviors that concern researchers and policymakers. The measurement of these behaviors addresses regular or established patterns of risk-taking, not just exploratory behavior, by incorporating indicators of recency and frequency. For example, "regular tobacco use" refers to the daily use of cigarettes or chewing tobacco during the last 30 days — not infrequent experimentation with smoking products.[9] While there is no clear rule for establishing the minimum recency or frequency for classifying a behavior as regular or patterned[10], an effort was made to establish similar frequencies of participation across behaviors to the extent possible with the available

data.

Although all of the behaviors examined occurred in the year prior to the interview, they are not measured with reference to the same time period due to limitations in the data collection (table 1). Because of the data's various time references and the fact that they are cross-sectional, we cannot assume causal links between the behaviors — co-occurrence is not proof that one behavior causes the other. However, the data allow us to describe the frequency and patterns of multiple risk-taking.

Table 2 presents the prevalence of each health risk behavior by grade, gender, and race/ethnicity.[11] The prevalence of these 10 behaviors varies widely, although across all groups fighting is the most common and illicit drug use other than marijuana is the least common. Most of the specific behaviors increase by grade-level; physical fighting is the only behavior to decline substantially at the older grades. Males students are generally more likely than female students to engage in each type of health risk behavior, except for the suicidal behaviors which are substantially higher among females. Patterns by race/ethnicity are less predictable, with the largest differences occurring in regular tobacco use and physical fighting.

How Common Are Multiple Risk Behaviors?

Engaging in multiple risk behaviors is the exception rather than the rule.

Table 3 shows that 46 percent of students in grades 7 through 12 do not participate in any of the identified risk behaviors. Twenty-six percent report engaging in only one health risk behavior. A similar share, 24 percent, participate in two to four risk behaviors. Participation in five or more health risk behaviors, reported by 4 percent of students, is uncommon. In total, 28 percent of students participate in multiple behaviors, that is two or more of the ten behaviors under study. Thus, for 7th through 12th

grade students, the co-occurrence of risk behaviors is the exception, not the rule.

The share of students engaging in multiple risk behaviors is similar by race/ethnicity.

The likelihood of engaging in multiple health risk behaviors does not vary significantly by race/ethnicity (see table 3). However, black students were less likely than white or Hispanic students to engage in no risk behavior and more likely to engage in only one risk behavior. Black students' elevated rate of participation in one risk behavior derives primarily from their higher rate of physical fighting, as compared with white and Hispanic students.

Older students are more likely to engage in multiple risk behaviors.

The share of students engaging in multiple risk behaviors increases by grade level. Among students in grades 7 and 8, 19 percent engage in two or more risk behaviors. This proportion rises to 30 percent among 9th and 10th graders and 36 percent among 11th and 12th graders. The small group of teens who engage in five or more behaviors triples from 7th and 8th graders to 11th and 12th graders. While differences by grade may represent fixed developmental patterns of behavior, they may also reflect changes in the onset of specific health risk behaviors over time.

Boys are more likely than girls to engage in multiple risk behaviors.

Boys are less likely than girls to report no risk behavior and are more likely to engage in multiple risk behaviors. Thirty-one percent of male students in grades 7 through 12 engage in two or more risk behaviors, compared to 26 percent of female students.

Boys and girls have different patterns of risk-taking by grade (see figure 1), suggesting that boys and girls have different developmental trajectories. Among girls, the rate of multiple risk-taking rises by 75

percent from grades 7 and 8 (17 percent) to grades 9 and 10 (29 percent), and then levels off among 11th and 12th graders (29 percent). For boys, the increase in multiple risk-taking in older grades is fairly linear, with boys in grades 11 and 12 twice as likely as boys in grades 7 and 8 to engage in two or more risk behaviors (42 percent compared to 21 percent). As a result of the different patterns by gender, the difference between boys and girls in multiple risk-taking grows larger at higher grades.

The minority of students take the majority of risks.

When students engage in health risk behaviors, they are often involved in multiple risk behaviors. Of the 54 percent of students engaging in at least one risk behavior, just over half also engage in a second (see table 4). For all but one of the risk behaviors, at least 75 percent of students engaging in it are also engaging in another. For example, among students reporting regular tobacco use, 85 percent engage in at least one additional risk behavior. Among students who carried weapons at school, 89 percent are also involved in at least one additional risk behavior.

Figure 2 illustrates the point that while multiple-risk students are a minority of all students, they are the majority of students involved in each specific risk. Among all students, only 28 percent are multiple risk takers. A multiple-risk student is counted in the overall prevalence for each risk behavior that he or she is involved in. Thus, the total share of multiple-risk students (28 percent) can not be summed across the 10 risk behaviors. For example, a student who is a regular smoker and engages in unprotected intercourse is a multiple risk-taker; as such, he or she is counted in both the 11 percent tobacco prevalence and the 12 percent unprotected intercourse prevalence. In contrast, the single risk-takers in each specific behavior can be summed across all 10 behaviors totaling the 26 percent of all students involved in only one health risk behavior. These single risk-takers generally make up only a small share of students involved in the specific risk behaviors.

However, students involved in only one health risk behavior do make up the majority of all fighters. This

is the only behavior for which this is true. Fifty-six percent of fighters engage in no other health risk behavior. Furthermore, many of these students are only involved in a single fight during the past year. Only 13 percent of students are involved in two or more fights in the past year. Among this group of multiple fighters, 64 percent engaged in another health risk behavior as well (results not shown).

Which Health Risk Behaviors Co-occur?

The co-occurrence of health risk behaviors is rarely so strong that two specific behaviors always occur together.[12] Instead, table 5 shows that when specific pairs of risk behaviors are examined, generally only a minority of students engaging in one behavior also engage in the other. Rates of overlap tend to be highest among substance use behaviors. For example, 45 percent of regular tobacco users also use marijuana, while 35 percent of marijuana users are also regular tobacco users. Students engage in a wide range of combinations of the 10 risk behaviors.

How Common are Positive Behaviors?

Today's teens are not just involved in negative health behaviors, they are actively participating in positive behaviors as well. Our definition of positive behaviors focuses on those behaviors that may promote the well-being of teens.[13] They include getting good grades in school, participating in school sports, participating in other school activities, being involved with a religious institution, and spending time with parents.[14] Identifying patterns of co-occurrence of positive behaviors with risk behaviors helps to challenge the categorization of teenagers as either "good kids" or "bad kids."

The majority of students engage in positive behaviors.

While few students engage in all of the positive behaviors examined, 92 percent of students engage in at least one. Table 6 shows that the majority of students report receiving good grades (54 percent), participating on a school sports team (58 percent), participating in other school activities (53 percent), being involved with a religious institution (72 percent), or spending time with parents (76 percent).

There are differences by age, grade, and race/ethnicity in the extent of participation in positive behaviors. Participation in positive behaviors declines with grade level, falling from an average of 2.6 behaviors among 7th and 8th grade students to 2.3 behaviors among 11th and 12th grade students. Boys engage in fewer positive behaviors on average than girls (2.3 positive behaviors versus 2.6 positive behaviors). Hispanic students engage in fewer positive behaviors (2.1) than white or black students (2.5 and 2.4 respectively). These general patterns of differences extend to each type of positive behavior; the only exception is the greater participation in school sports among male than female students.

Participation in multiple risk behaviors does not preclude participation in positive behaviors.

Students who engage in multiple health risk behaviors also engage in many positive behaviors, as shown in figure 3. Even among students engaging in five or more risk behaviors, 81 percent engage in at least one positive behavior. However, the more risk behaviors students engage in, the fewer positive behaviors they report. For example, participation in two or more positive behaviors is reported by 49 percent of students engaging in five or more health risk behaviors, compared to 80 percent of those students engaging in no health risk behaviors. This general pattern is consistent among both sexes and all grades and racial/ethnic groups (results not shown).

Out-of-School Males: A Vulnerable Group

Add Health only includes students and cannot be used to generalize to all adolescents, including those currently out of school. The survey likely underestimates the prevalence of risk behaviors among all teenagers since those who drop out of school are at higher risk of engaging in health risk behaviors.[15] Estimates of risk behaviors among older adolescents will be particularly affected, since they are more likely to drop out or to have completed school.

To illustrate this point, we examine risk-taking among adolescent males ages 15 through 19 both in school and out of school in the 1995 NSAM. The out-of-school populations include both high school drop outs and those who have completed high school but are not currently enrolled in post-secondary education. NSAM inquires about most of the same health risk behaviors as Add Health but does not measure suicidal behavior.[16]

Out-of-school males are more likely than in-school males to engage in multiple risk behaviors.

Table 7 shows that compared to in-school males, out-of-school males are more likely to engage in multiple risk behaviors. Sixty-four percent of out-of-school males engage in two or more health risk behaviors, compared to only 40 percent of in-school males. Although out-of-school males are older on average than in-school males, these age differences alone do not account for the greater participation in multiple risk behaviors among the former group.

Almost all adolescent males, regardless of school status, engage in at least one positive behavior (95 percent).[17] Only 4 percent of out-of-school males and 8 percent of in-school males report engaging in none of the positive behaviors examined. Nearly all are either employed, receive good grades, participate in sports or clubs, or report religious involvement. Even among out-of-school males who engage in multiple risk behaviors, more than 90 percent engage in some positive behavior.

Out-of-school males are less likely than in-school males to engage in multiple positive behaviors. Only 54 percent of all out-of-school males engage in two or more positive behaviors, compared to 74 percent of in-school males.

Conclusion

This analysis examines the participation in 10 health risk behaviors by students in grades 7 through 12. Nearly half of students do not engage in any of the 10 risk behaviors. One out of four students engage in multiple risk behaviors. Multiple risk-taking increases with age, so that one out of three students in grades 11 and 12 engage in two or more health risk behaviors.

Although multiple risk-taking involves the minority of students, its importance to overall risk-taking among adolescents is great. Multiple-risk students are responsible for most risk-taking. For each specific risk behavior, the majority of students involved in it also engage in other risk behaviors as well.

Risk-taking among adolescents does not preclude participation in positive behaviors. Most teens, even those engaging in multiple risk behaviors, also engage in positive behaviors. Positive behaviors connect students to a range of adults — parents, ministers, priests or rabbis, coaches, or club advisors — and social institutions. Such connections provide potential points of contact for providing health education to teens.[18] Moreover, the emotional quality of these connections may influence teens' well-being and protect them from risk-taking and its negative consequences.[19]

BOX 1

The National Longitudinal Study of Adolescent Health (Add Health) is a study of the health-related behaviors of students in the United States. Interviews were conducted in two stages. In the first stage, students in grades 7 through 12 attending 145 schools around the U.S. answered brief questionnaires in their classrooms. In the second stage, in-home interviews were conducted with a subset of students between April and December of 1995. Data for this study come from the 12,105 students participating in both stages of the survey who are representative of adolescents in grades 7 through 12 during the 1994-95 school year. More information about Add Health and access to data is available at **www.cpc.unc.edu/addhealth**

The 1995 National Survey of Adolescent Males (NSAM) is a household survey of a nationally representative sample of 1,729 15- through 19-year-old males. Since the NSAM is representative of teenage males living in households, the sample includes both current students and non-students. More information about NSAM and access to data is available at **www.socio.com**

Use of a new computer-assisted interviewing technology greatly enhances the quality of the self-reported data examined here. Prior studies of health risk behaviors among adolescents have been hampered by concerns about the honesty of self-reports for behaviors that are highly sensitive and may be illegal. Both NSAM and Add Health used innovative technology to address this concern. Instead of using standard paper and pencil self-administered questionnaires, adolescents answered sensitive questions directly on lap-top computers. Researchers using NSAM found that teen males were significantly more likely to report participation in many health risk behaviors using the computer rather than the paper self-administered questionnaires. For example, teen males were two times as likely to report daily marijuana use in the past year on the computer questionnaire, as compared to the paper and pencil version.[20]

ENDNOTES

1. Sells, C.W. and Blum, R.W. 1996. "Morbidity and Mortality Among U.S. Adolescents: An Overview of Data and Trends." *American Journal of Public Health* 86: 513—519.

2. U.S. Preventive Services Task Force. 1996. *Guide to Clinical Preventive Services* (2nd ed.). Alexandria, VA: International Medical Publishing; Ozer, E.M., Brindis, C.D., Millstein, S.G., Knopf, D.K., and Irwin, C.E. 1998. *America's Adolescents: Are They Healthy?* San Francisco, CA: National Adolescent Health Information Center, University of California, San Francisco.

3. There is also concern about adolescents' participation in more than one risk behavior at a single point in time, such as drinking immediately prior to sexual intercourse. (See, for example, Halpern-Felsher, B.L., Millstein, S.G., and Ellen, J.M. 1996. "Relationship of Alcohol Use and Risky Sexual Behavior: A Review and Analysis of Findings." *Society for Adolescent Medicine* 19: 331—336.)

4. Donovan, J.E., and Jessor, R. 1985. "Structure of Problem Behavior in Adolescence and Young Adulthood." *Journal of Counseling and Clinical Psychology* 53: 890—904; Irwin, C.E., Jr., and Millstein, S.G. 1986. "Biophysical Correlates of Risk-Taking Behaviors During Adolescence." *Journal of Adolescent Health Care* 7: 82S—96S; Kandel, D. 1988. "Issues of Sequencing of Adolescent Drug Use and Other Problem Behaviors." *Drugs and Society* 3: 55—76; Elliot, D.S., and Morse, B.J. 1989. "Delinquency and Drug Use as Risk Factors in Teenage Sexual Activity." *Youth and Society* 21: 21—60.

5. Resnick, G., and Burt, M.R. 1996. "Youth at Risk: Definitions and Implications for Service Delivery." *American Journal of Orthopsychiatry* 66(2): 172—188; Elliott, D.S. 1993. "Health-Enhancing and Health-Compromising Lifestyles." In *Promoting the Health of Adolescents*. Millstein, S.G., Petersen, A.C., and Nightingale, E.O., eds. New

York, NY: Oxford University Press.

6. Jessor, R., and Jessor, S. 1977. Problem Behavior and Psychosocial Development: A Longitudinal Study of Youth. New York: Academic Press.

7. A non-fatal suicide attempt is defined as a health risk behavior, not a risk outcome, because it is a strong predictor of a later completed suicide and this is a substantial threat to adolescent health. See Spirito, A., Brown, J., Overholser, J., and Fritz, G. 1989. "Attempted Suicide in Adolescence: A Review and Critique of the Literature" *Clinical Psychology Review* 9: 335—363.

8. Kolbe, L.J., Kann, L., and Collins, J.L. 1993. "Overview of the Youth Risk Behavior Surveillance System." *Public Health Report* 108 (supp. 1): 2–10; Ponton, L.E. 1996. "Disordered Eating." In *Handbook of Adolescent Health Risk Behavior*. New York and London: Plenum Press; Osgood, D.W., O'Malley, P.M., Bachman, J.G., and Johnston, L.D. 1988. "The Generality of Deviance in Late Adolescence and Early Adulthood." *American Sociological Review* 53: 81—93.

9. This is similar to the measure of cigarette smoking employed in the national indicators of child well-being. U.S. Department of Health and Human Services (DHHS). Office of the Assistant Secretary for Planning and Evaluation. 1998. *Trends in the Well-Being of America's Children and Youth*. Washington, DC: DHHS.

10. Elliott, D.S. 1993. "Health-Enhancing and Health-Compromising Lifestyles." In *Promoting the Health of Adolescents*.

11. The totals include respondents of all racial/ethnic groups, while the race/ethnicity breakdown is limited to non-Hispanic whites, non-Hispanic blacks, and Hispanics.

12. The only exception to this is suicide attempts and suicidal thoughts. Because only students who report suicidal thoughts were asked about suicide attempt, 100 percent of

students who reported a suicide attempt also reported suicidal thoughts. In contrast, only 30 percent of students who reported suicidal thoughts reported a suicide attempt.

13. This approach differs from recent research examining "health-enhancing" behaviors directly, such as regular exercise, seat belt use, and adequate sleep (See, for example, Jessor, R., Turbin, M.S., and Costa, F.M. 1998 "Protective Factors in Adolescent Health Behavior." *Journal of Personal Social Psychology* 75(3): 788—800). Our interest is in examining adolescents' behavior outside of the limited realm of risky or enhancing health behaviors and to look more broadly at other socially desirable behaviors.

14 Positive behaviors in Add Health include: *Good* Grades, indicated by a B average or higher for most recent grading period; *School Sports*, indicated by participating in or planning to participate in a school sport this year; *Other School Activities*, indicated by participating in or planning to participate in a non-sport school extracurricular this year; *Religious Involvement*, indicated by attending church services or church youth group once or more per month last year; and *Family Involvement*, indicated by four or more of the following positive interactions with parents (resident and non-resident) in the last 4 weeks: shopping; playing a sport; going to a religious service or church-related event; talking about someone you're dating or a party you went to; going to a movie, play, museum, concert, or sports event; talking about a personal problem you were having; talking about your school work or grades; working on a project for school; talking about other things you're doing in school.

15. Brener, N.D., and Collins, J.L. 1998. "Co-occurrence of Health-Risk Behaviors Among Adolescents in the United States." *Journal of Adolescent Health* 22(3): 209—213; Center for Disease Control. 1994. "Health Risk Behaviors Among Adolescents Who Do and Who Do Not Attend School--United States, 1992." *Morbidity and Mortality Weekly Report* 43: 129-132.

16. Health risk behaviors are measured slightly differently in the Add Health and NSAM surveys. "Multiple risk" in NSAM refers to engaging in 2 or more of the following behaviors: *Regular Tobacco Use*— Smoked a cigarette daily in the past 12 months; *Regular Alcohol Use*— Had a drink weekly or daily in the past 12 months; *Regular Binge*

Drinking— Had 5+ drinks within a couple of hours 4 or more times in the past 30 days; *Marijuana*— Used marijuana at least monthly; *Other Illicit Drug Use*— Used cocaine/crack or injected drugs at least monthly; *Fighting*— Was in a physical fight in the past 12 months; *Weapon Carrying*— Carried a gun, knife, or other weapon in the past 30 days; *Unprotected Intercourse*— Used no effective contraceptive method in last sex in past 12 months.

17. Positive behaviors in the NSAM include: *Good Grades* (among in-school respondents) — Grades were well above average or somewhat above average; *Always Employed* (among out-of-school respondents) — Always had a full- or part-time job since leaving school; *Sports*— Spent 10+ hours playing sports per week; *Clubs*— Spent 1+ hours a week in school clubs or other school activities; *Religious Involvement*— Believe religion is very important or somewhat important.

18. For examples of interventions connecting to teens in these settings, see Sonenstein, F.L., Stewart, K., Lindberg, L.D., et al. 1997. *Involving Males in Preventing Teen Pregnancy*. Washington, D.C.: The Urban Institute. 118—122.

19. Resnick, M.D., Bearman, P.S., Blum, R.W., et al. 1997. "Protecting Adolescents from Harm: Findings from the National Longitudinal Study of Adolescent Health." *Journal of the American Medical Association* 278(10):823—832.

20. Turner, C.F., Ku, L., Rogers, S.M., Lindberg, L.D., Pleck, J.H., and Sonenstein, F.L. 1998. "Adolescent Sexual Behavior, Drug Use, and Violence: New Survey Technology Detects Elevated Prevalence." *Science* 280(5365): 867—873.

Table 1:
Definitions of Health Risk Behaviors as Measured in Add Health

Health Risk Behavior	Definition	Time period: Last 30 days	Time period: Last 12 months
Regular Tobacco Use	Used chewing tobacco every day or smoked cigarettes every day in the last 30 days.	✓	
Regular Alcohol Use	Drank 1+ times per week in the last 12 months.		✓
Regular Binge Drinking	Drank 5+ drinks in a row, 1+ times per week in the last 12 months.		✓
Marijuana Use	Smoked marijuana 1+ times in the last 30 days.	✓	
Other Illicit Drug Use	Used cocaine, inhalants, or other illicit drugs 1+ times in the last 30 days.	✓	
Fighting	Involved in a physical fight in the last 12 months.		✓
Weapon Carrying	Carried a weapon, such as a gun, knife, or club, to school in the last 30 days.	✓	
Suicidal Thoughts	Thought seriously about suicide in the last 12 months.		✓
Suicide Attempt	Attempted suicide in the last 12 months.		✓
Unprotected Intercourse	Did not use an effective contraceptive method at most recent intercourse. Respondents who had never had sex or hadn't had sex in the last 12 months were considered not to have engaged in unprotected intercourse in the last 12 months.		✓

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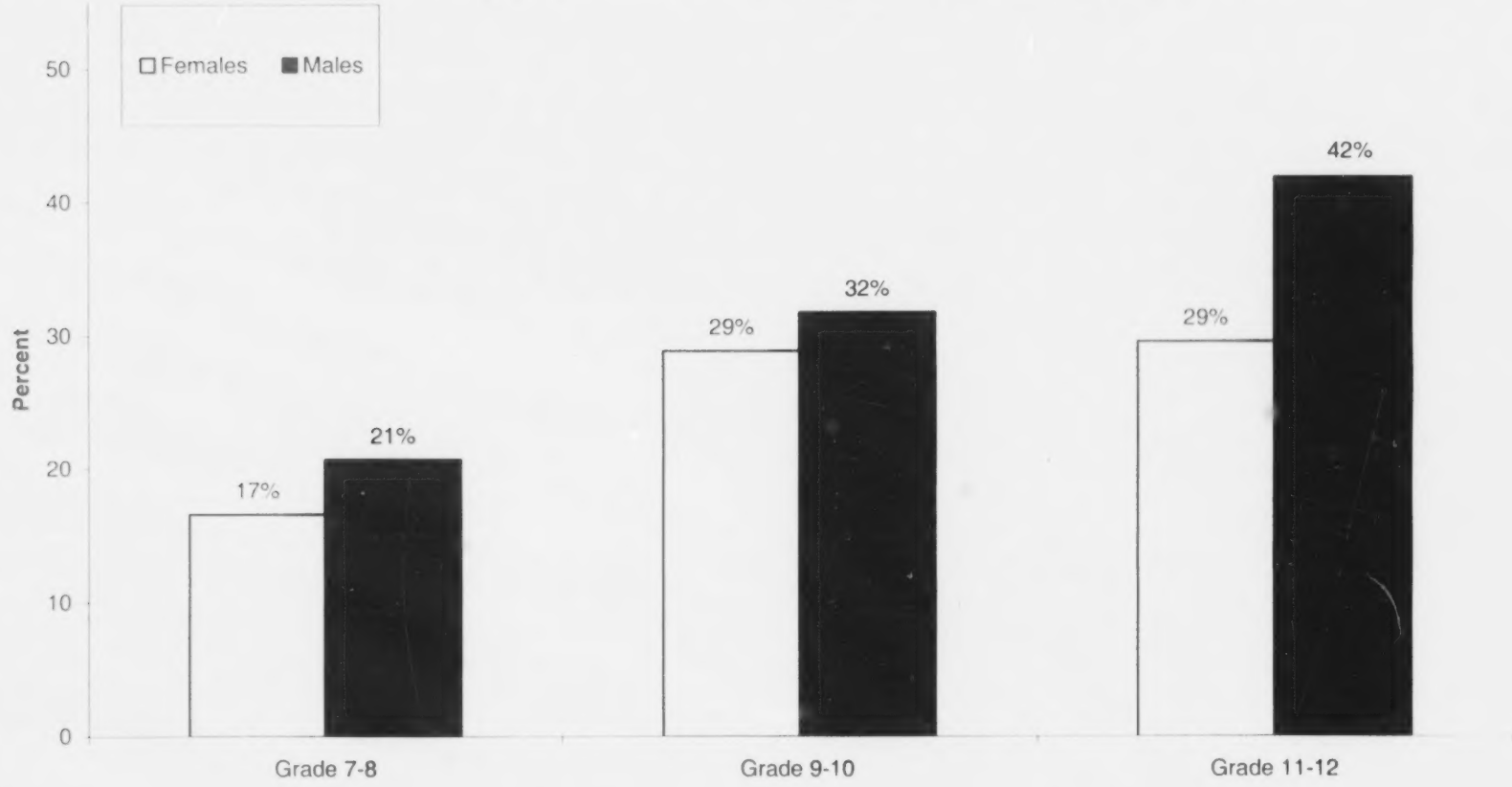
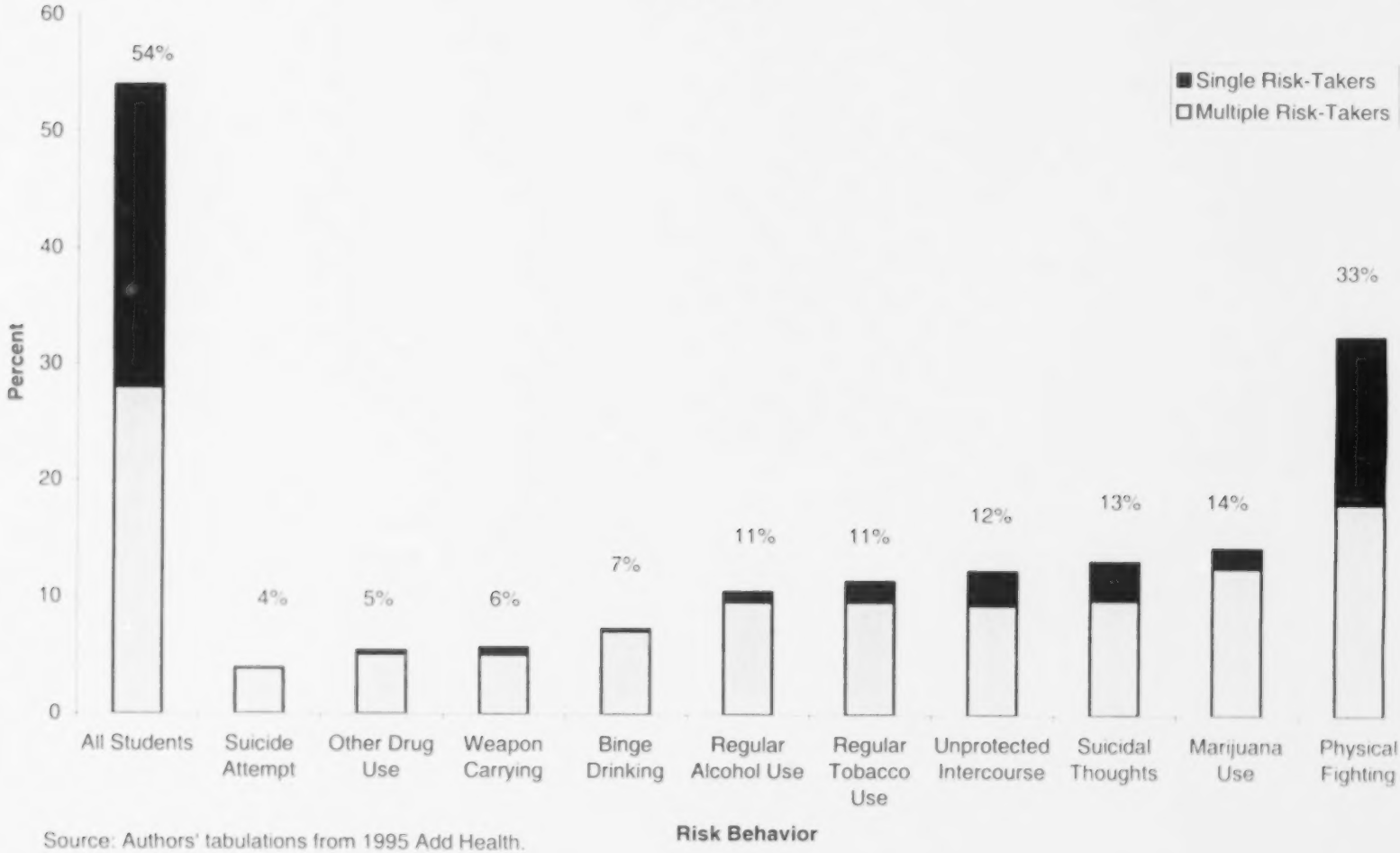
Figure 1:
Percent of Students Engaging in Multiple Health Risk Behaviors*, By Grade and Gender



* **Risk Behaviors** include regular tobacco use, regular alcohol use, regular binge drinking, marijuana use, other illicit drug use, fighting, weapon carrying, suicidal thoughts, suicide attempt, and unprotected intercourse.

Source: Authors' tabulations from 1995 Add Health.

Figure 2:
Prevalence of Single and Multiple Risk-Taking among Students in 7th-12th Grade, by Type of Behavior



Source: Authors' tabulations from 1995 Add Health.

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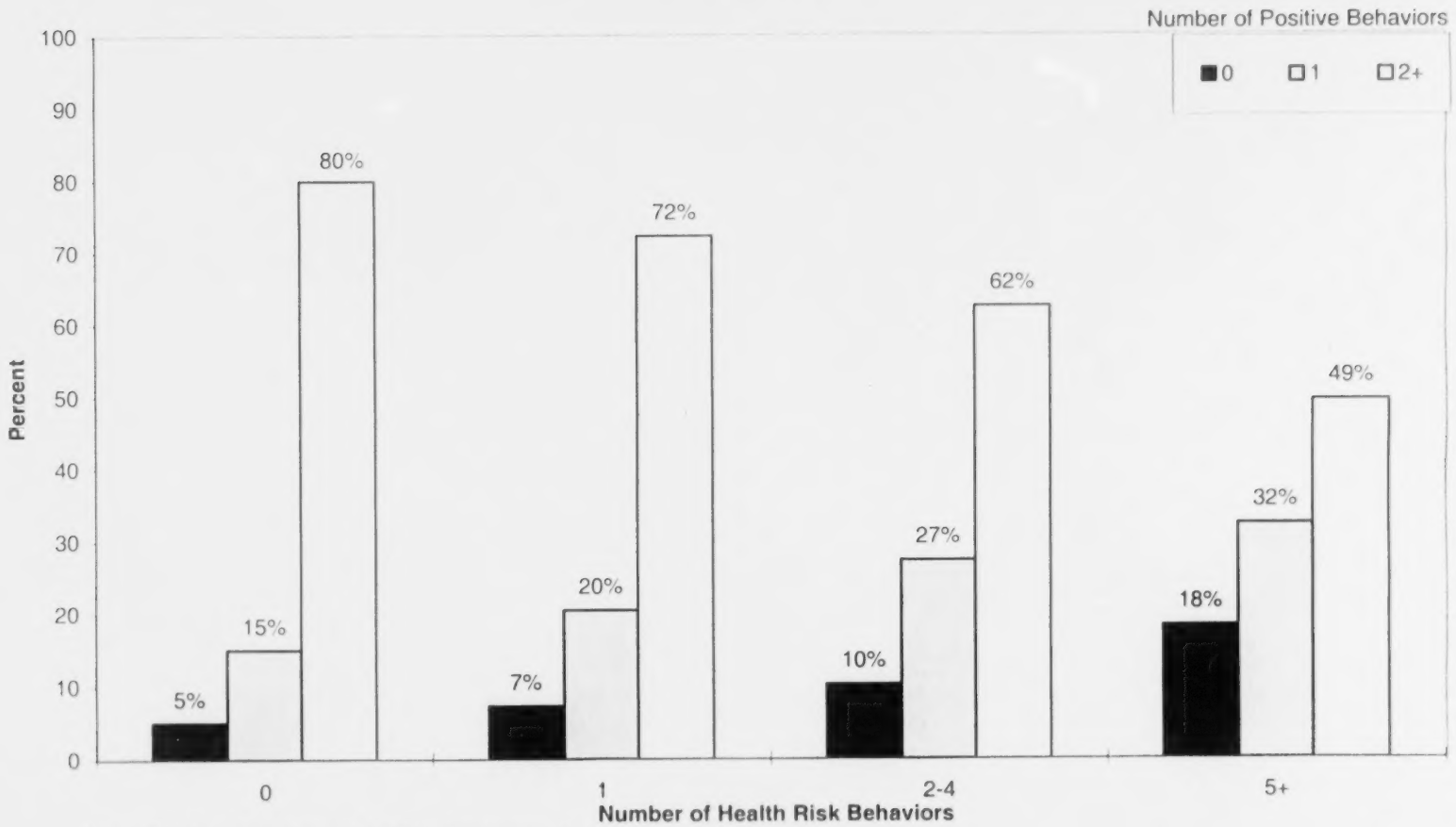
Figure 3:
Participation in Positive Behaviors among Students in 7th-12th Grade, By Number of Health Risk Behaviors



Note: Totals may not sum to 100% due to rounding.
Source: Authors' tabulations from 1995 Add Health.

Table 2:
Prevalence of Health Risk Behaviors among Students in 7th-12th Grade, by Grade, Gender, and Race/Ethnicity

	Regular Tobacco Use	Regular Alcohol Use	Regular Binge Drinking	Marijuana Use	Other Illicit Drugs	Fighting	Weapon Carrying	Suicidal Thoughts	Suicide Attempt	Unprotected Intercourse
All (%) *	11	11	7	14	5	33	6	13	4	12
Grade (%)										
7-8 grade	5	4	3	8	4	37	5	11	4	6
9-10 grade	11	10	7	16	6	33	7	15	4	14
11-12 grade	18	17	12	19	6	27	6	13	3	20
Gender (%)										
Male	12	13	10	16	6	42	9	10	2	11
Female	10	8	5	13	5	23	3	16	6	14
Race/Ethnicity (%)										
Non-Hispanic white	15	11	8	14	7	29	5	13	4	11
Non-Hispanic black	2	10	6	14	2	44	6	11	4	17
Hispanic	6	9	7	14	4	39	8	13	4	14

* "All" includes Asian, Native American, and other racial/ethnic groups.

Source: Authors' tabulations from 1995 Add Health.

Table 3:
Number of Health Risk Behaviors among Students in 7th-12th Grade, by Grade, Gender, and Race/Ethnicity

	Number of Risk Behaviors*					
	0	1	2-4	5+	Total**	2+
All (%) ***	46	26	24	4	100	28
Grade (%)						
7-8 grade	53	28	17	2	100	19
9-10 grade	44	25	25	5	100	30
11-12 grade	40	23	30	6	100	36
Gender (%)						
Male	39	29	26	5	99	31
Female	52	22	22	4	100	26
Race/Ethnicity (%)						
Non-Hispanic white	47	24	23	5	99	28
Non-Hispanic black	39	32	26	3	100	29
Hispanic	45	27	24	4	100	28

* Risk Behaviors include regular tobacco use, regular alcohol use, regular binge drinking, marijuana use, other illicit drug use, fighting, weapon carrying, suicidal thoughts, suicide attempt, and unprotected intercourse.

** Totals may not sum to 100% due to rounding.

*** "All" includes Asian, Native American, and other racial/ethnic groups.

Source: Authors' tabulations from 1995 Add Health.

Table 4:
Students in 7th-12th Grade Reporting One or More Health Risk Behavior

	Health Risk Behavior										
	Any Risk Behavior	Regular Tobacco Use	Regular Alcohol Use	Regular Binge Drinking	Marijuana Use	Other Illicit Drugs	Fighting	Weapon Carrying	Suicidal Thoughts	Suicide Attempt	Unprotected Intercourse
Students reporting behavior (%)	*54*	*11*	*11*	*7*	*14*	*5*	*33*	*6*	*4*	*13*	*12*
Students reporting at least one additional behavior (%)	53	85	92	97	88	95	56	89	75	100	76

Source: Authors' tabulations from 1995 Add Health.

Table 5:
Conditional Prevalence of Health Risk Behaviors among Students in 7th-12th Grade, by Participation in Specific Health Risk Behaviors

Students Engaged In:	Conditional Prevalence									
	Regular Tobacco Use	Regular Alcohol Use	Regular Binge Drinking	Marijuana Use	Other Illicit Drugs	Fighting	Weapon Carrying	Suicidal Thoughts	Suicide Attempt	Unprotected Intercourse
Regular Tobacco Use (%)	--	30	26	45	20	49	11	22	8	27
Regular Alcohol Use (%)	32	--	58	49	21	50	16	23	9	27
Regular Binge Drinking (%)	40	83	--	53	25	52	18	23	8	30
Marijuana Use (%)	35	34	26	--	29	50	14	25	10	26
Other Illicit Drug Use (%)	41	41	33	76	--	52	20	37	17	27
Fighting (%)	17	16	12	22	9	--	13	18	6	17
Weapon Carrying (%)	21	28	23	36	19	71	--	30	13	22
Suicidal Thoughts (%)	19	18	13	27	16	44	13	--	30	20
Suicide Attempt (%)	24	25	16	37	25	52	19	100	--	25
Unprotected Intercourse (%)	25	24	18	31	12	46	10	21	8	--
All (%)	11	11	7	14	5	33	6	4	13	12

Source: Authors' tabulations from 1995 Add Health.

Table 6:
Prevalence of Positive Behaviors among Students in 7th-12th Grade, by Grade, Gender, and Race/Ethnicity

	Positive Behavior						
	Any Positive Behavior	Good Grades	School Sports	Other School Activities	Religious Involvement	Family Involvement	Avg # of Positive Behaviors
All (%) *	92	54	58	53	72	76	2.4
Grade (%)							
7-8 grade	94	55	61	53	75	77	2.6
9-10 grade	93	51	61	51	73	76	2.5
11-12 grade	92	54	51	57	68	75	2.3
Gender (%)							
Male	91	50	62	42	70	73	2.3
Female	94	57	54	65	74	78	2.6
Race/Ethnicity (%)							
Non-Hispanic white	93	58	60	56	70	78	2.5
Non-Hispanic black	92	39	58	51	79	72	2.4
Hispanic	89	41	49	42	74	69	2.1

* "All" includes Asian, Native American, and other racial/ethnic groups.

Source: Authors' tabulations from 1995 Add Health.

Table 7:
Participation in Number of Positive Behaviors among In-School and Out-of-School Males Ages 15-19, by Number of Health Risk Behaviors

# of Risk Behaviors*	# of Positive Behaviors**			
	0	1	2-4	Total
Total (%)				
0-1 (55%)	4	18	79	100
2-8 (45%)	6	35	59	100
Total	**5**	**25**	**70**	**100**
In-School (%)				
0-1 (60%)	4	17	79	100
2-8 (40%)	5	29	66	100
Total	**4**	**22**	**74**	**100**
Out-of-School (%)				
0-1 (36%)	8	28	64	100
2-8 (64%)	8	44	47	100
Total	**8**	**38**	**54**	**100**

* Risk Behaviors include regular tobacco use, regular alcohol use, regular binge drinking, marijuana use, other illicit drug use, fighting, weapon carrying, and unprotected intercourse.

** Positive Behaviors include good grades/always employed, school sports, clubs, and religious involvement.

Source: Authors' tabulations from the 1995 National Survey of Adolescent Males.